

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 7/16/2008 have been fully considered but they are not persuasive.
2. To rebut the rejection under 35 U.S.C. 112, first paragraph, Applicant submitted an unverified Wikipedia article from June 2008, a page from a Linux Programmer's Manual located on the Internet, and an excerpt from an untranslated Japanese UNIX manual. None of these pieces of "evidence" fixes the problem with the specification.
3. Paragraph [0028] explicitly states that "...only empty data (i.e., 0 bytes) can be read from the empty data storage section 23. A specific example of the empty data storage section 23 is a null device which is supported by some OS's." Nothing in the specification or Applicant's "evidence" indicates that this is equivalent to an end-of-file. Nothing in the specification or Applicant's "evidence" indicates that the intent of Applicant's specification was to teach the transmission of packets consisting of "0000" data, instead of sending zero (read as none) bytes. It is not clear what Applicant intends empty data to encompass from the various submissions made by Applicant, and the term "empty data" must be interpreted as best possible from the specification. This best possible interpretation reads "empty data" as zero or no bytes, which cannot possibly exist. Alternately, the transmission of a packet of "empty data" would necessarily need a header that could not contain the same "empty data" of all zeros in order to function under the TCP/IP protocol.
4. Applicant failed to respond to the rejection under 35 U.S.C. 112, second paragraph, which indicates there are two possible ways to interpret "an empty data storage section" as being a data storage section that is empty or a storage section reserved strictly for "empty data". Applicant merely restated the claim language. As best interpreted from the specification and Applicant's remarks, the empty data storage section is a memory controller which sends null words.
5. Applicant argues that Olnowich and Kato, or any combination thereof, fail to disclose or suggest *an empty data storage section for erasing any data written thereto in response to a data write, and for returning data indicating an end of a file as empty data in response to a data read*. As best interpreted from the specification and Applicant's remarks, the *empty data storage section for erasing any data*

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written thereto in response to a data write, and for returning data indicating an end of a file as empty data in response to a data read is a memory controller which sends null words. Column 14, lines 59-61 teaches the transmission of null words at the end of the sending of data words, essentially an EOF.

6. Applicant argues that Olnowich and Kato, or any combination thereof, fail to disclose a *connection management section switches a write destination (between a data temporary storage section and an empty data storage section) and a read source (between the data temporary storage section and the empty data storage section) based on whether the connection management section is in (ii) a receiving-end clear wait state which exists after the transmitting-end clear request is received and until the receiving-end clear request is received, or (ii) a transmitting-end clear wait state which exists after the receiving-end clear request is received and until the transmitting-end clear request is received.* As best interpreted, this is a synchronization request command. Kato teaches in column 6, lines 52-60 the transmission of ready 0 and ready 1 as indicating when to receive and when to transmit data, or a synchronization command.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Information critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicant argues in the remarks of 11/16/2007 that empty data is null data. This is not supported by the specification. The specification supports a null device, which is not null data. The specification states that empty data is "0 bytes". 0 bytes does not exist when transmitting data. Data must at least have a header if it is to be considered null data. A packet that has a header where the data payload consists solely of "0000" data values, as Applicant intends to claim, is not supported in the specification.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claims 1-3 refer to an empty data storage section. It is unclear if Applicant is intending to claim a storage section for empty data, or a data storage section that is in fact empty.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich (US 6,092,155) in view of Kato et al. (US 5,832,215).

14. In regard to claim 1, Olnowich disclosed a memory controller system which allows for the transmission and receipt of null data (column 8, lines 48-67) which supports functions allowing for switching of ports in an adapter (column 13, lines 21-47) and the transmission of null data (column 14, lines 49-67). The data is changeable (column 19, lines 1-48). Packets may be transmitted that consist solely of a header (column 22, lines 6-14). This is *a transmitting-end processing section for performing a processing step, of one of said multiple processing steps, of processing data contained in the stream data, and transmitting the processed data; a receiving-end processing section for receiving the processed data transmitted from said transmitting-end processing section, for receiving empty data, and for performing another processing step, of a next one of said multiple processing steps, of processing the received data; a data temporary storage section for temporarily storing the processed data transmitted from said transmitting-end processing section; an empty data storage section for erasing any data written thereto in response to a data write, and for returning data indicating an end of file as empty data in response to a data read; and a connection management section for (i) allowing the processed data transmitted from said transmitting-end processing section to be received by said receiving-end processing*

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section, via said data temporary storage section, by performing a data write to and a data read from said data temporary storage section, and (ii) allowing empty data to be received by said receiving-end processing section, via said empty data storage section, by performing the data write to and the data read from said empty storage section, wherein: said connection management section is operable to (i) switch a write destination of the processed data transmitted from said transmitting-end processing section, the write destination being switched between said data temporary storage section and said empty data storage section; the switching of the write destination and the switching of the read source being executed by said connection management section based on whether said connection management section is in (i) a normal operation state, (ii) a receiving-end clear wait state which exists after the transmitting-end clear request is received by said connection management section, or (iii) a transmitting-end clear wait state which exists after the receiving-end clear request is received by said connection management section and until the transmitting-end clear request is received by said connection management section.

15. Olnowich fails to disclose that the data temporary storage and empty data transmission features operate based upon a "change signal". However, Kato disclosed the use of a "ready 0" and "ready 1" signal which controls the operation of processors transmitting data between the two systems. (column 6, lines 51-60). *(a control section for transmitting a change signal to instruct a change of a subject of processing, the change signal being transmitted to said transmitting-end processing section and to said receiving-end processing section; said control section, said transmitting-end processing section, said receiving-end processing section, and said connection management section are interconnected and configured such that, if a change signal is transmitted from said control section (i) to said transmitting-end processing section, said transmitting-end processing section is operable to output a transmitting-end clear request to said connection management section, and (ii) to said receiving-end processing section, said receiving-end processing section is operable to output a receiving-end clear request to said connection management section.*

16. Management of transmission and ports in a network inherently requires control signals to manage the microprocessor commands. Kato presents a system that shows the use of such control signals.

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Olnowich must be controlled in order to operate without race conditions in the computers and to properly execute the wishes of the programmer. It would have been obvious to one of ordinary skill in the art at the time of invention to use commands such as the ready change signal in Kato to control the Olnowich system.

17. In regard to claim 2, Olnowich further disclosed:

said connection management section is operable to:

select said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state; column 12, lines 9-27

erase the processed data stored in said data temporary storage section if the transmitting-end clear request or the receiving-end clear request is received when said connection management section is in the normal operation state; column 12, lines 9-27

select said empty data storage section as the read source when said connection management section is in the receiving-end clear wait state; and column 12, lines 9-27

select said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state. column 12, lines 9-27

18. In regard to claim 3, Olnowich further disclosed:

said connection management section is operable to:

select said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state; column 12, lines 9-27

erase the processed data stored in said data temporary storage section if the transmitting-end clear request or the receiving-end clear request is received when said connection management section is in the normal operation state; column 12, lines 9-27

select said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state; column 12, lines 9-27

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wherein, when said connection management section is in the receiving-end clear wait state said connection management section is operable to:

designate as old data any data stored in said data temporary storage section when the transmitting-end clear request has been received; column 12, lines 9-27

select, as the write destination, a region in said data temporary storage section where the old data is not stored; column 12, lines 9-27

select, as the read source, a region in said data temporary storage section where the old data is stored while the old data is present; and column 12, lines 9-27

select said empty data storage section as the read source once the old data is no longer present; and column 12, lines 9-27

erase the old data if the receiving-end clear request is received when said connection management section is in the receiving-end clear wait state. column 12, lines 9-27

19. In regard to claim 4, Olnowich further disclosed:

said transmitting-end processing section and said receiving-end processing section are operable to output the transmitting-end clear request and the receiving-end clear request, respectively, and perform transmission and reception of any data by using a data transmission section and a data reception section, respectively, which provides an accessing function to said connection management section. column 13, lines 21-47, Column 14, lines 49-67

20. In regard to claim 5, Olnowich further disclosed:

said connection management section is operable to select, if any data transmitted from said transmitting-end processing section cannot be written to said data temporary storage section, whether to (i) perform a process of immediately notifying an error to said transmitting-end processing section, or (ii) perform a process of waiting until it becomes possible to write any data to said data temporary storage section and perform a process of notifying said transmitting-end processing section a result of writing any data to said data temporary storage section. column 13, lines 21-47, Column 14, lines 49-67

21. In regard to claim 6, Olnowich further disclosed:

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22. *said connection management section is operable to select, if any data to be received by said receiving-end processing section cannot be read from said data temporary storage section, whether to (i) perform a process of immediately transmitting an error to said receiving-end processing section, or (ii) perform a process of waiting until it becomes possible to read any data from said data temporary storage section and perform a process of notifying said receiving-end processing section a result of reading any data from said data temporary storage section* column 13, lines 21-47, Column 14, lines 49-67

23. In regard to claim 7, Olnowich further disclosed:

A data input section for receiving the stream data as an input. Column 10, lines 3-21

24. In regard to claim 8, Olnowich further disclosed:

Said data input section is operable to receive the input of the stream data from a removable recording medium. Column 10, lines 3-21

25. In regard to claim 9, Olnowich further disclosed:

A data output section for outputting the stream of data as a result of performing the multiple processing steps. Column 10, lines 3-21

26. In regard to claim 10, Olnowich further disclosed:

Said data output section is operable to output, to a removable recording medium, the result of performing the multiple processing steps. Column 10, lines 3-21

27. In regard to claim 11, Olnowich further disclosed:

Said transmitting-end processing section and said receiving-end processing section are operable to output the transmitting-end clear request and the receiving-end clear request, respectively, independent of one another. Column 10, lines 3-21

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29. Squibb US 5,745,906

30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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